

## PATENT ABSTRACTS OF JAPAN

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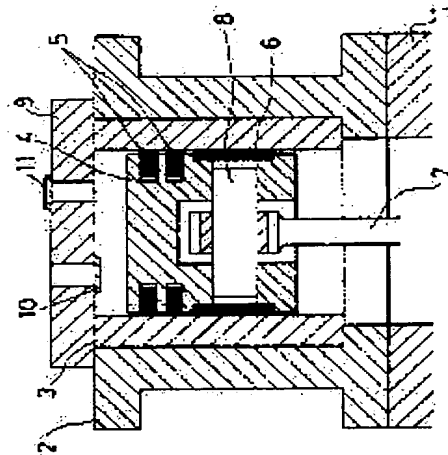
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### (54) RECIPROCATING COMPRESSOR

#### (57)Abstract:

PURPOSE: To obtain a compact and non-oiling reciprocating compressor having a large capacity by making the sliding surfaces of a cylinder and a piston of ceramics, and making at least one of them of oil-impregnated ceramics.

CONSTITUTION: A cylinder 2 is fixed on a base 1 of a main frame, and a cylinder liner 3 made of the ceramics material is installed to the inner wall of the cylinder 2. On the other hand, a piston ring 5 made of the ceramics material and a guide ring 6 made of the ceramics material similarly are installed to the peripheral surface of a piston 4. The piston ring 5 and the guide ring 6 are made of the oil-impregnated ceramics. Furthermore, a connecting rod 7 connected to a driving source through an eccentric shaft is fitted to a piston pin 8 fixed on the piston 4 freely to be oscillated. When the piston 4 is lowered, the gas is sucked through an intake valve 10 on an upper cover 9, and reversely, when the piston 4 is raised, the gas is discharged through a discharge valve 11.



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